

New Mexico Energy \$mart Monitoring

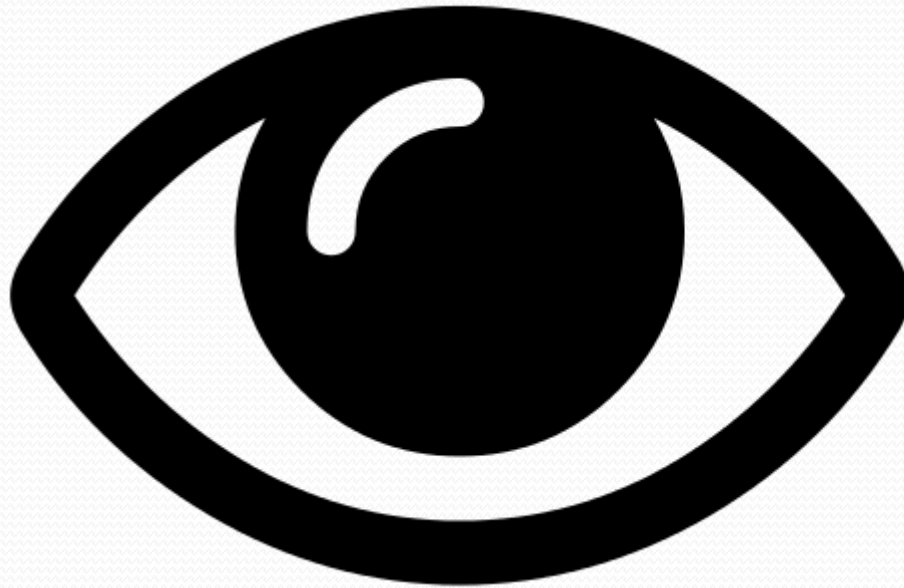
A method to ensure quality

Troy Cucchiara
New Mexico Mortgage Finance Authority
505 767-2256
tcucchiara@housingnm.org

Overview

- Desk Monitoring
 - Basic strategies and reasons
- QCI Inspections
 - You can run but you can't hide
- Annual Monitoring
 - Programmatic
 - Technical

Desk Monitoring



Desk Monitoring

- Entry of specifics by agencies
- Tells us a great deal about a unit, agency, or month
- Can be used to crunch numbers

Desk Monitoring

- 100% of all units
- Required to pay invoices
- Anomalies are questioned, explanations provided
- Unusual situations are worked through
- Training may be identified
- Dialogue is facilitated
- Units are flagged for possible inspection
- Cost and savings are watched closely

Client Name	County	House Size	Fuel Type	Year Built	House Type	Auditor	Insp.	SIR	Dollars Saved
John	Eddy	1716	Prop.	1968	SB	Brian	Brian	1.8	\$1,158
Measure	Cost	Est.	SIR	MMBTU	Pre	Post	Notes		
Air Sealing	968	1000	1.1	4.1	3125	1710	1900		
Replace Door	466	470	1.6	1.5	30x80 SC				
Pipe Wrap	32	32	9.7	1		R3			
Tank Insulation	86	52	6.6	2	R24				
Replace Door	561	570	1.5	1.6	36x80 metal				
Low E Window	1996	1990	1.2	4.1	Metal Single	Double Vin	4		
CO Alarm	57	52	H&S				1 installed		

Desk Monitoring Results:



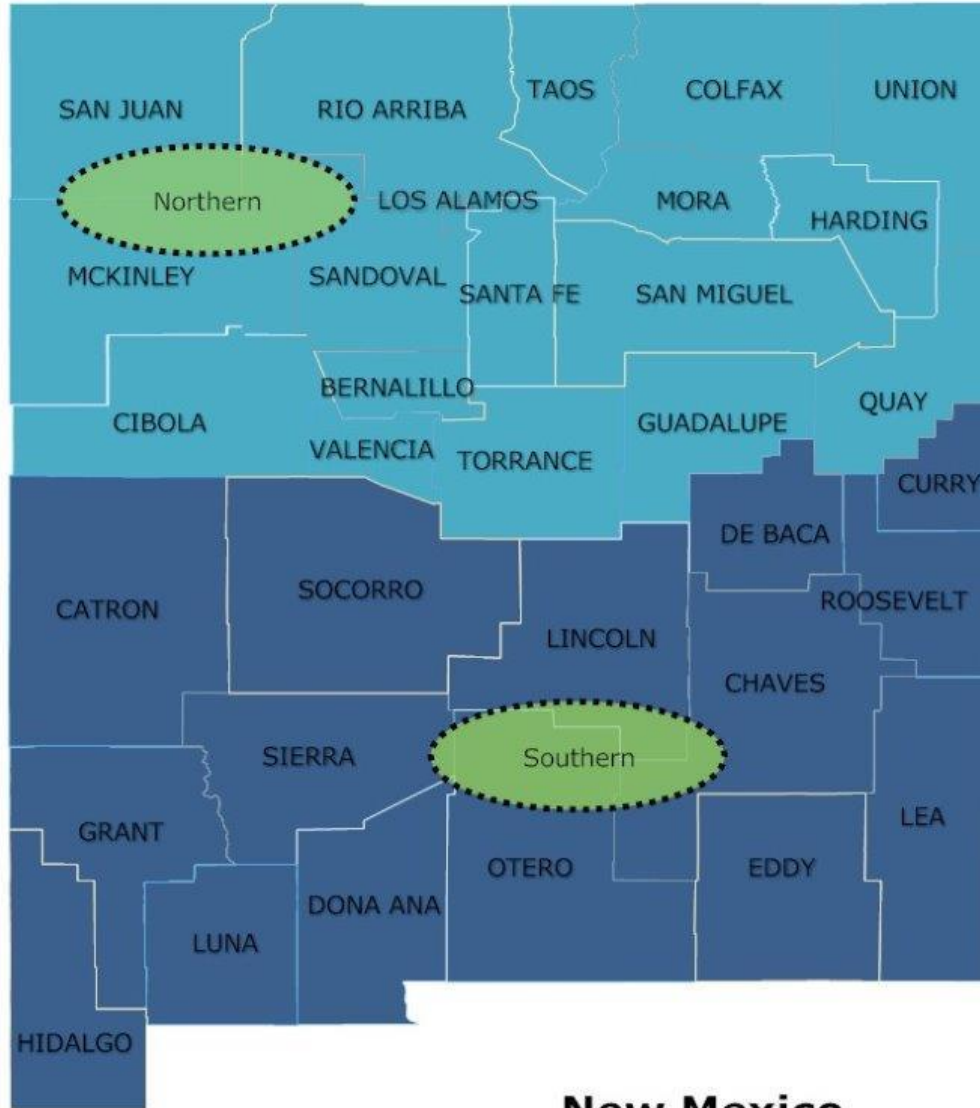
QCI Unit Inspections

- How these are selected
- Timing
- Purpose
- Method
- Knowing the file, unit, what to look for
- Remedies
- Follow up

QCI Unit Inspections-Selection

- Determined by flagged units during desk monitoring
- Housing type
- Timing and travel
 - The sooner after completion the better

QCI Unit Inspections-Selection



New Mexico

QCI Unit Inspections-Method

The image shows a collection of QCI Unit Inspection forms, which are used for documenting unit inspections. The forms are stacked and overlapping, with some sections clearly visible. The forms include various tables and checkboxes for recording inspection data.

Visible sections and tables include:

- SPECIAL SERVICES CUSTOMER REQUEST**: A section for recording customer requests and service details.
- GARAGE OUT MERCHANDISE**: A table for recording merchandise details, including item number, description, and quantity.
- HEATING EQUIPMENT TYPE**: A section for recording heating equipment details, including type, location, and capacity.
- HEATING DUCT LOCATION**: A section for recording heating duct location details, including location, insulation, and capacity.
- CLIENT CONFIDENTIALITY STATEMENT**: A statement at the bottom of the forms regarding confidentiality.

The forms are filled out with handwritten information, including dates, times, and specific unit details. The forms are organized into sections, with some sections containing tables for recording data.

QCI Unit Inspections-Method

1. File inspection, memorize scope of work (the main characters)
2. Select potential problem areas-may already be done
3. Client interview
4. Walk the outside, check for all compliance, gas testing
5. Check for workmanship and SWS compliance inside measures
6. Ask occupant about client education where applicable
7. Complete all inside diagnostic testing and compare to final
8. Check against file notes, SWS, Tech Standards, Codes
9. Give chance to fix problems if any
10. Clean up and pick up, final words

When there are problems



QCI Unit Inspections-Aftermath

- Letter to the agencies
- Follow up
- Training

Programmatic Monitoring

- Fiscal Piece
- Policies and Procedures
- Inventory
- Personnel
- External Audit
- Procurement-Overlap to technical

Technical Monitoring

- Office Interview
- Assessment monitoring
- Work in progress monitoring
- Final Inspection monitoring
- Tied to Programmatic
- Is everything congruent?
- Close out interview
- Letters to agencies

Office Interview-

All items on monitoring tool discussed

- Procedures discussed
- Energy Audit libraries last update
- Methods of SWS compliance
- How is training identified
- Safety Manual examined
 - New modifications (Confined Space, etc.)
 - SDS sheets in vehicles

Assessment Monitoring

- Treated like proctoring an exam
- Client file is viewed front to back for eligibility, intake procedures, ranking, etc.
- Are mistakes and missed opportunities due to nervousness or is it a pattern?
- Client education points covered
- Scheduling efficiency-does it make sense with travel

Work in Progress-Looking for patterns

- By this time, I have a good idea on where to focus
- PPE, does it look natural or just because I am there
- Following scope of work-how does it flow?
- Client education
- Train me like you would someone new
- Where is the Field Guide and how are they using it-memory, cards, book, phone
- Is the crew being efficient?
 - Client communication on arrival time
 - Tool lay out

Final Assessment

- Very much like proctoring a QCI
 - Did they hit all the points, cover all the tests, test properly, address concerns
- How closely does the inspector look at the file
- Are there call backs and how is it handled
- Are mistakes just mistakes or are they patterns
- What is general feel of client
- How is the home left
- How is the file closed up

How it overlaps program monitoring

- Procurement procedures
- Audit Libraries
- Inventory of tools and tool condition, general care and calibration
- Production and scheduling

Is Everything Congruent?

- From all the information collected both physically and mentally, does it all line up? Does it make sense?
 - Step back and take a look from a distant perspective
 - Completely remove any training hats
 - Connect the dots as if someone that knows nothing of the program
 - Think of ways to make their procedures more clear and transparent

Exit Interview

- Organize list categorically into:
 - Findings-Attached to a regulation or code
 - Concerns-Methods that are not sound that can eventually lead to a finding (like weak internal controls)
 - Comments, improvements, suggestions,
 - Best Practices-Always find something to highlight

Letter to Agency

- This should reflect the exit summary
- Specific regulations and details are included
- No surprises
- Letter sent within 30 days-response required within 30 days
- Response should include sound ways of addressing what is found and supporting documents if needed

The training relationship

- Always looking for opportunities to train or for training
- Each issue boils down to one basic question:
 - Is it because of training or is it because they just did not want to do it right?

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Technical Monitoring – Making the Most Efficient Use of Time and Resources

Bruce Hagen, ND Weatherization Program Manager

Technical Monitoring – Making the Most Efficient Use of Time and Resources

Number of Homes Monitored

In 2016 we have a combination of QCI methods our agencies are using

- Some use independent QCI's and some use their estimators

- For independent QCI's we will do at least 5%

- For agencies that use their estimators we will do at least 10%

We have eight regions and have estimated 220 completions with the grant

- We always end up with more completions than estimated

- We would have to monitor at least 20 homes

- In reality we will do 30 – 35 homes

We also do file monitoring, administrative monitoring, and fiscal review

Preliminary Work – try to minimize time at the home and at the agency

Look over client information in the software – look for anomalies or questionable entries

- Job Estimate (Work Order)

- Job Cost Report

- Desk Review Sheet

- Other information in the database – Diagnostics, measures, etc.

Preliminary Work – try to minimize time at the home and at the agency

Job Estimate

Client Information

1234
Bentson, Dave
555 front st
Minot, ND 58701

Directions To Client

At the end of the road



Disclaimer

Job Estimate

Perform Measure: Yes

First Year Savings = \$32.00 * Simple Payback = 2.60 yrs * S.I.R = 7.7 * Lifetime = 20.00 Pre R = 19.8 Post R = 50 Buffering = Semi Buffered

- 4.1001 General Preparation
- 4.1006 Attic Openings
- 4.1003.1 Pitched/Vaulted/Cathedralized Ceilings-Loose Fill Over
- 4.1005.2 Accessible Floors-Loose Fill Insulation
- 4.1005.4 Accessible Floors-Loose Fill Over Existing Insulation

Comments

ATTIC - <input type="checkbox"/> N/A		
Attic Air Sealing Performed	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Attic Insulation Installed	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Insulation Certificate Posted	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A

Preliminary Work – try to minimize time at the home and at the agency

Job Cost Report

Job Cost Report

Region 9

Job Number 1234

Fund Code 2015 REG

Reweatherized Job No

555 front st

Phone

Minot 58701

Kings

Bentson, Dave

Secondary Utility: Excel Energy

Account Number:

Start Date 1/15/2014

Auditor Bill 1

Dwelling Type Site Built

Date Completed 6/15/2016

Crew Leader

Number of Units in Building 1

Final Inspector Bill 2

Home Owner No

Comments

had to go back and adjust the new window so it would close tight

Diagnostics

Blower Door Test

Pre Test	2000.00	ASHRAE	38.00
Post Test	1200.00	Ventilation Added	yes
MVR	1286.00		
125% MVR	1607.50		

Pressure Pans

Number of Registers	10
Total Pre Test	37.00
Total Post Test	6.00

Furnace

Draft	-9
CO	26
Heat Rise	168.00 - 76.00 = 92.00
Repair	no
Replacement	no

Cost Effective Guideline

Duct Leakage to the Outside

Water Heater

Temperature 45 °F

Preliminary Work – try to minimize time at the home and at the agency

Job Cost Report

Itemized Cost for Task IA

Bill 2	1/15/2014	<u>10.00</u>	0.00 IA	<u> </u>
Subtotal		10.00		\$180.00

Itemized Cost for Task IA

29	Cellulose - Loose Fill	\$6.50	\$188.50	29	0	1/15/2014 IA
20	Cellulose - Loose Fill	\$6.50	\$130.00	20	0	1/15/2014 IA
2	Gable Vents	\$12.00	<u>\$24.00</u>	2	0	1/15/2014 IA
Subtotal			\$342.50			

Desk Review Report

SFN 59909 (7/13)

[illegible]

Preliminary Work – try to minimize time at the home and
at the agency

Other information in the database

Diagnostics –

Do they pass the standards?

Were all the tests completed?

Any numbers that look out of place?

Fuel usages

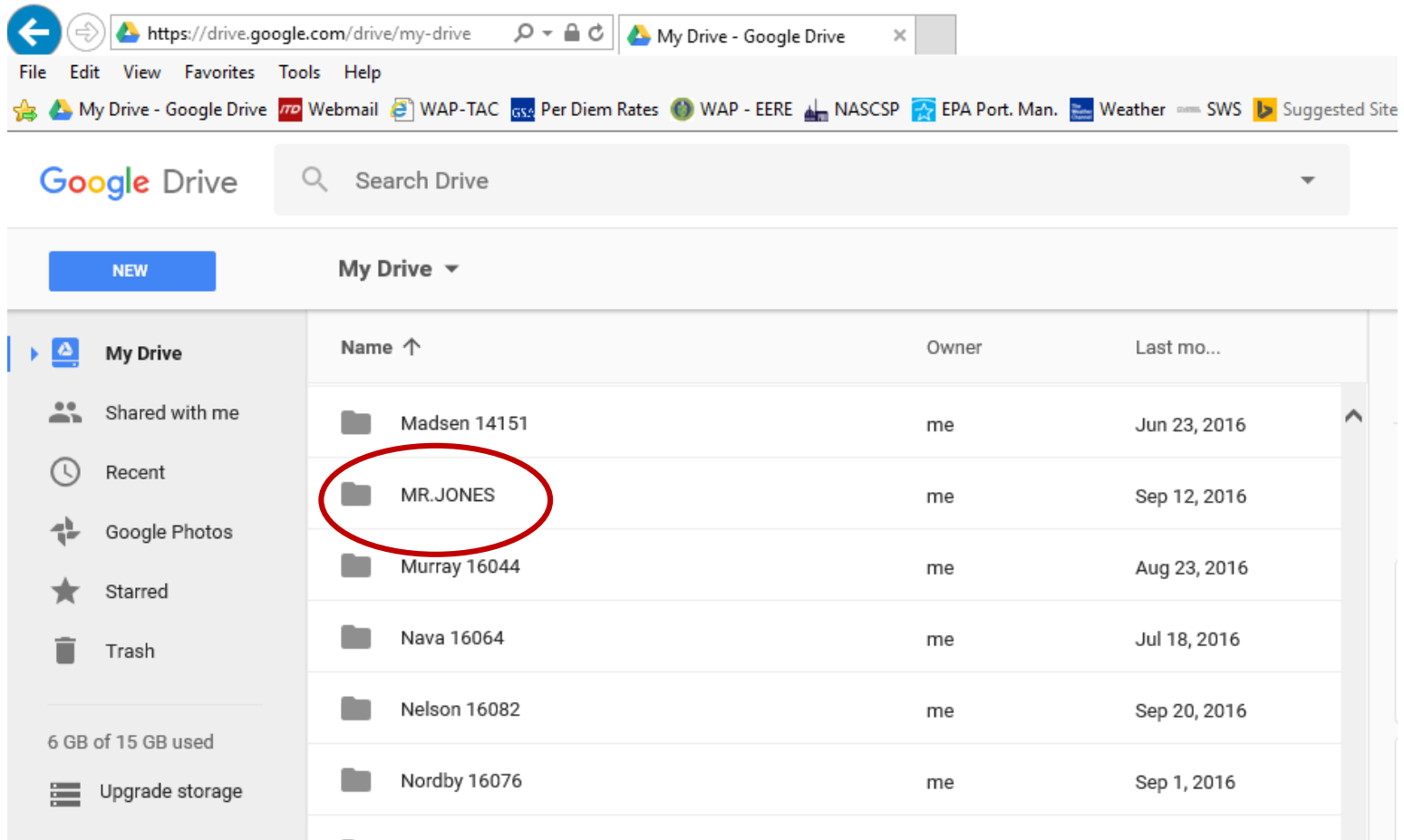
Measures

Sub-contractor costs

Preliminary Work – try to minimize time at the home and at the agency

Google Drive

Look at Google Drive before going and match pictures to file review checklists and measures completed on Job Estimate and Job Cost Report




The screenshot shows the Google Drive web interface. The browser address bar displays the URL <https://drive.google.com/drive/my-drive>. The page header includes the Google Drive logo and a search bar. The left sidebar shows navigation options: My Drive, Shared with me, Recent, Google Photos, Starred, and Trash. The main content area displays a list of folders in 'My Drive'.

Name ↑	Owner	Last mo...
Madsen 14151	me	Jun 23, 2016
MR.JONES	me	Sep 12, 2016
Murray 16044	me	Aug 23, 2016
Nava 16064	me	Jul 18, 2016
Nelson 16082	me	Sep 20, 2016
Nordby 16076	me	Sep 1, 2016

At the bottom left, it indicates '6 GB of 15 GB used' and provides an 'Upgrade storage' link.











Preliminary Work – try to minimize time at the home and at the agency


Google Drive





NEW


My Drive > MR.JONES ▾


	Name ↑	Owner	Last mo...
	Furn_DHW	me	Sep 12, 2016
	Lead_Jones	me	Sep 12, 2016
	attic chaseway.JPG	me	2:59 PM
	attic hatch.JPG	me	2:58 PM
	Fan.JPG	me	2:58 PM
	fanswitch.JPG	me	2:58 PM
	finished chaseway.JPG	me	3:01 PM
	IMG_0317.JPG	me	Aug 7, 2016
	IMG_0318.JPG	me	Aug 7, 2016
	IMG_0324.JPG	me	Aug 25, 2016


 My Drive

 Shared with me


 Recent

 Google Photos

 Starred

 Trash

6 GB of 15 GB used

 Upgrade storage

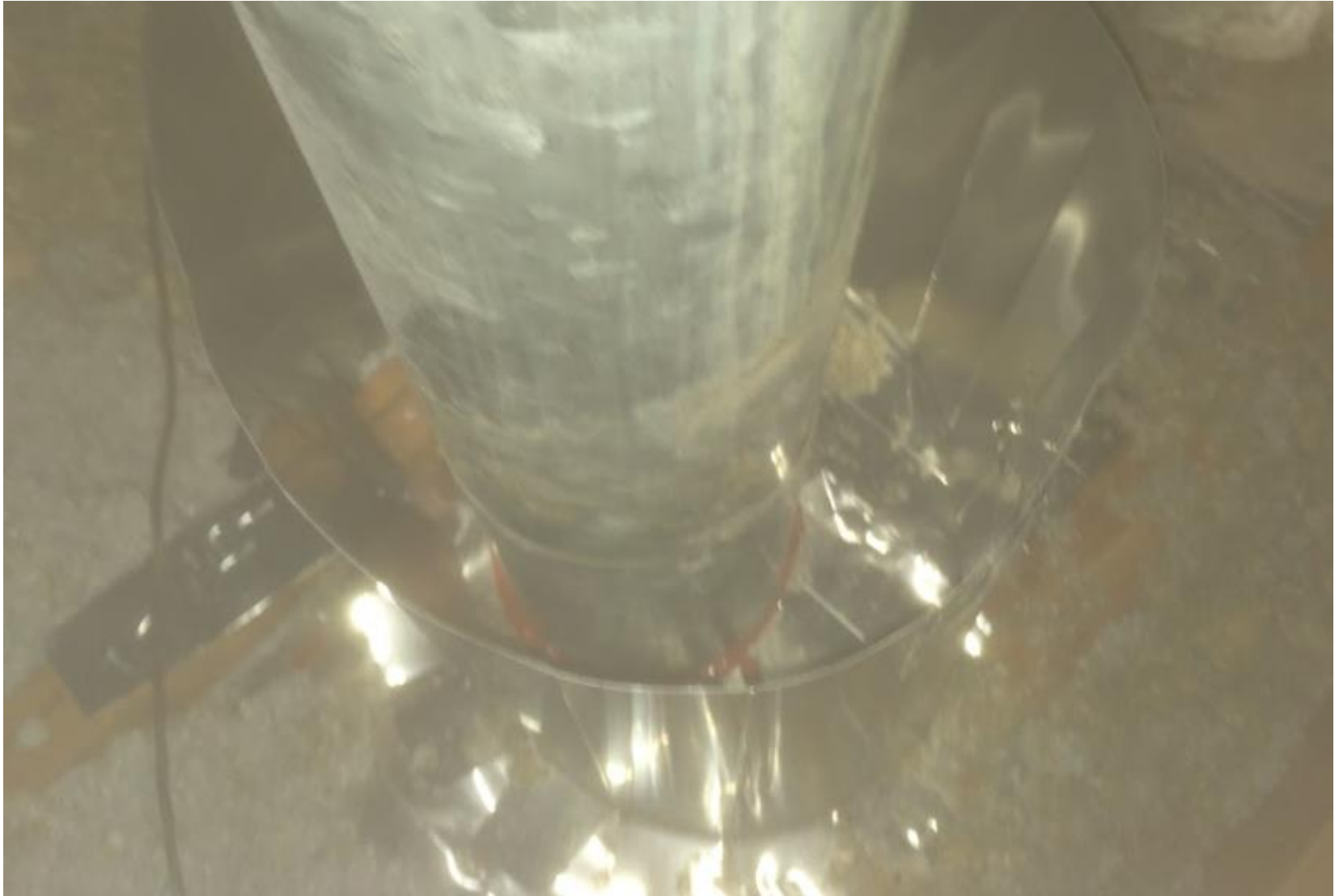
Preliminary Work – try to minimize time at the home and
at the agency

Google Drive



Preliminary Work – try to minimize time at the home and
at the agency

Google Drive



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Preliminary Work – try to minimize time at the home and
at the agency

Google Drive



Preliminary Work – try to minimize time at the home and at the agency

Choose files to review and homes to visit

Send list to agency to have ready

Have them contact clients and set up visits

We usually have them set up back ups in case someone isn't home

Make notes on things to look at in the file review and at the jobsite

The object is to become as familiar as possible with the jobs you are going to

While at the agency -

File review

Check the files for things you found in the preliminary review

Make notes on anything new that you will want to look at when at the jobsite

Document any missing or incorrect paperwork

When doing the review, talk with people at the agency about any questions

You may be able to clear some things up before going to the jobsite

While at the agency -

File review – a good checklist is key!

WEATHERIZATION QUALITY ASSURANCE NORTH DAKOTA DIVISION OF COMMUNITY SERVICES SFN 59679 (2/14)

Agency		Coordinator	
Fund Code	Job/Identifier Number	Completed <input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Completion
Name		Address	
City	State	ZIP Code	
Estimator	Agency Inspector	Crew Foreman	

Housing Type <input type="checkbox"/> Site Built <input type="checkbox"/> Mobile Home <input type="checkbox"/> Shelter <input type="checkbox"/> Multi Family (5 or More)	
Primary Fuel Type <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane <input type="checkbox"/> Electric <input type="checkbox"/> Oil <input type="checkbox"/> Other _____	
Combustion Appliances Present <input type="checkbox"/> Secondary Heat <input type="checkbox"/> Cook Stove <input type="checkbox"/> DHW <input type="checkbox"/> Fireplace <input type="checkbox"/> Other _____	

File Review

Eligibility Determination Present	<input type="checkbox"/> Yes <input type="checkbox"/> No
Proof of Ownership or Signed Rental Agreement	<input type="checkbox"/> Yes <input type="checkbox"/> No
Unit Assessed Using	<input type="checkbox"/> Energy Audit
Work Agreement/Notice to Proceed	<input type="checkbox"/> Yes <input type="checkbox"/> No
Invoices/Purchase Orders For All Materials Installed	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lead-Paint Notification Documentation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A post-1978 or verified as "lead free"
Certified Renovator and Test Kit Documentation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A post-1978 or verified as "lead free"

Match work and invoices to what is observed on the home

Measure - IA - Dergepack Attic

Perform Measure: No

Est. Qty.	Material Code	Material Descr	Unit Cost	Location	Net Cost	Actual Qty	Actual Cost
11	Cellulose - Dense Pack	Cellulose - Dense Pack	\$ 5.90		\$64.90		\$ _____
_____	_____	_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	_____	_____	_____	\$ _____
				Material	\$64.90	_____	\$ _____
				Labor	\$179.83	_____	\$ _____
				Other	\$0.00	_____	\$ _____
				Sub Total	\$244.73	_____	\$ _____

First Year Savings = 16.03 * Simple Payback = 1525 yrs * S.I.R = 1.27 * Lifetime = 20.00 Pre R = 9.8 Post R = 22.7 Buffering = Semi Buffered

Referenced Specifications

4.1001 General Preparation

4.1001.6 Enclosed A/c Storage Platform Floor - Dense Pack Installation

Comments

ATTIC - <input type="checkbox"/> N/A	
Attic Air Sealing Performed	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Attic Insulation Installed	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Insulation Certificate Posted	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Heat Source/Vent Damming	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Attic Access Insulated and Mechanically Fastened	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Energy Related Attic Repairs Documented	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Comments on Attic	

Job Cost Report

Region 9

Job Number 1234

Fund Code 2015REG

Reauthorized Job No

555 front st

Phone _____

355 North St
 01461-1000

Minot 5

Kings

Imp	Date	Hours Worked	Overtime Worked	Task Code	
Subtotal		12.00			\$190.00
Normalized Cost for Task IA					
Bill 2	1/15/2014	10.00	0.00	IA	
Subtotal		10.00			\$180.00
Normalized Cost for Task IP					
Bill 2	1/15/2014	12.00	0.00	P	
Bill 1	1/15/2014	12.00	0.00	P	
Subtotal		24.00			\$408.00
Normalized Cost for Task IVV					
Bill 2	1/16/2014	5.00	0.00	IVV	
Subtotal		5.00			\$90.00

Net Quantity Used	Material Description	Unit Cost	Material Cost Detail		Quantity Returned	Issue Date	Task Code
			Net Cost	Quantity Issued			
Itemized Cost for Task D							
1	Lockset	\$15.00	\$15.00	1	0	1/15/2014	D
1	Steel door	\$113.79	\$113.79	1	0	1/15/2014	D
Sub total			\$128.79				
Itemized Cost for Task EE							
22	25 watt cfl bulbs	\$3.00	\$66.00	22	0	1/15/2014	EE
Sub total			\$66.00				
Itemized Cost for Task F							
1	New Furnace install	\$2,800.00	\$2,800.00	1	0	1/15/2014	F
Sub total			\$2,800.00				
Itemized Cost for Task HS-A							
4	100 cfm fan	\$100.00	\$400.00	4	0	4/10/2015	HS-A
Sub total			\$400.00				
Itemized Cost for Task IA							
29	Cellulose - Loose Fill	\$6.50	\$189.50	29	0	1/15/2014	IA
20	Cellulose - Loose Fill	\$6.50	\$130.00	20	0	1/15/2014	IA
2	Gable Vents	\$12.00	\$24.00	2	0	1/15/2014	IA
Sub total			\$342.50				
Itemized Cost for Task IP							
1	205 bd ft 2 part foam	\$120.00	\$120.00	1	0	1/15/2014	IP
10	caulk	\$4.00	\$40.00	10	0	1/15/2014	IP
15	construction adhesive	\$4.00	\$60.00	15	0	1/15/2014	IP
31	Foundation Panel	\$25.50	\$775.00	31	0	1/15/2014	IP
15	J Channel for Foundation Panel (10 Foot Length)	\$15.00	\$225.00	15	0	1/15/2014	IP
Sub total			\$1,220.00				

While at the home -

Perform Measure: No

Est. Qty.	Material Code	Material Descr	Unit Cost	Location	Net Cost	Actual Qty	Actual Cost
11	Cellulose - Dense Pack	Cellulose - Dense Pack	\$5.90		\$64.90		\$
						-	\$
							\$
							\$
							\$
				Material	\$64.90		\$
						-	\$
				Labor	\$179.63		\$
						-	\$
				Other	\$0.00		\$
						-	\$
				Sub Total	\$244.53		\$

First Year Savings = 16.03 * Simple Payback = 1525 yrs * S.I.R = 1.27 * Lifetime = 20.00 Pre R = 9.8 Post R = 22.7 Buffering = Semi Buffered

4.1001 General Preparation

4.1001.6 Enclosed A/c Storage Platform Floor - Dense Pack Installation

Comments

ATTIC - <input type="checkbox"/> N/A	
Attic Air Sealing Performed	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Attic Insulation Installed	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Insulation Certificate Posted	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Heat Source/Vent Damming	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Attic Access Insulated and Mechanically Fastened	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Energy Related Attic Repairs Documented	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Comments on Attic	

WEATHERIZATION ASSISTANCE PROGRAM ESTIMATOR FIELD INSPECTION
NORTH DAKOTA DIVISION OF COMMUNITY SERVICES
 SFN 59495 (01/12)

Name		Job Number	Date
Address		City	Home Phone
Directions		Work Phone	
Audited By	Furnace Work?	Heat Loss Needed?	Number of Rooms
Conditioned Building Specs.	Building Age :	Lead Book?	
:	X	<input type="checkbox"/> Mobile Home	
:	X	<input type="checkbox"/> 1 Story	
:	X	<input type="checkbox"/> 1½ Stories	
:	X	<input type="checkbox"/> 2 Stories	
:	X	<input type="checkbox"/> 2½ Stories	
Combustion Appliances Present			
<input type="checkbox"/> Secondary Heat <input type="checkbox"/> Cook Stove <input type="checkbox"/> DHW <input type="checkbox"/> Fireplace <input type="checkbox"/> Other _____			
General Heat Waste		Baseload	
		Lights on 2 hours or more	Existing Wattage
		Refrigerator Make and Model	Kwh/Yr
Health and Safety			
Mold or Moisture Problems?			

		Exist	Add	Comments
Miscellaneous				
Water Hester Jacket		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Pipe Insulation			<input type="checkbox"/> Yes <input type="checkbox"/> No	
CO Detector	Location			
Smoke Detector	Location			
KEEP				
Dryer Vent				
Dryer Vent Hose				
Roof Jack Kit	Location			

While at the home - Check Diagnostics

ND WX DIAGNOSTIC FIELD FORM

NORTH DAKOTA DEPARTMENT OF COMMERCE

DIVISION OF COMMUNITY SERVICES

SFN 59251 (4/16)

Name		Job#		Date					
BLOWER DOOR TEST DATA & BLOWER DOOR GUIDED AIR SEALING (WCEG)									
Test Conditions:		Baseline Pressure: Pa		Door Opening Used:					
Test		CFM₅₀		CEG/100 CFM₅₀ = \$					
Initial Test		No. in Crew	Minutes	CFM ₅₀ Reduction	Cost per 100 CFM ₅₀				
Test 1									
Test 2									
Test 3									
Test 4									
Test 5									
Final Test									
Minimum Ventilation Rate =									
ZONAL PRESSURE TESTING									
House at -50 pa		Test 1	Test 2	Zone	Test 1 Test 2				
Zone				Before Hole					
Zone				CFM50					
Zone				House to Zone Pressure	H/Z or Z/O H/Z or Z/O				
Zone				After Hole					
Zone				CFM50					
REFRIGERATOR				House to Zone Pressure					
Brand				CFM50 Difference					
Model #				Maximum Reduction					
KW/H				Square Inches					
DUCTWORK LEAKAGE/AIR HANDLER ASSESSMENT									
Room-to-Room Pressure Testing				Duct Leakage to Outdoors (Test at 25 Pascals Positive)					
#	Room	Test	#	Room	Test				
1			5						
2			6						
3			7						
4			8						
House to Outside Pressure:		CFM Leakage as Percentage of Conditioned Floor Area		in ² in ²					
If a room is more than 3 Pascals different from main body of house, relieve pressure.				%					
PRESSURE PAN TESTING AND LEAKAGE ASSESSMENT					Pressure Pan Totals				
#	Room	Test 1	Test 2	#	Room	Test 1	Test 2	Pre	Post
1				8					
2				9					
3				10					
4				11					
5				12					
6				13					
7				14					

ND WX WORST CASE SPILLAGE TEST

ND DEPARTMENT OF COMMERCE/DCS

SFN 59252 (2/4/16)

Name		Job#		Date	
COMBUSTION APPLIANCE ZONE (CAZ) WRT OUTSIDE TEST					
Test Steps (refer to Field Standards for details)				Test 1	Test 2
1. Ambient CO must be monitored at all times during testing. (See table on bottom.)					
2. Deactivate all combustion appliances and exhaust fans.					
3. Inspect combustion appliances and venting before test setup.					
4. Put dwelling in wintertime condition, close all exterior doors and windows.					
5. Clean/replace furnace and dryer filters.					
6. Open all interior doors with return air or exhaust fan(s) and/or dryer on other side.					
7. Close all other interior doors.					
8. Setup and adjust manometer to measure pressure of CAZ WRT outdoors.					
9. Record Baseline Pressure of CAZ WRT outdoors or run Baseline function on DG-700.				Pa	Pa
10. Turn on all exhaust fans, and dryer. (Do not turn on whole house cooling fan.)				Pa	Pa
11. If furnace exists, check to see if greater depressurization exists with or without the air handler on. (If the air handler fan cannot be activated without firing furnace activate furnace and air handler and proceed).				Pa	Pa
12. Open and close CAZ door to verify where greater depressurization exists.				Pa	Pa
13. Record the position of the door to the CAZ. (circle door position)				Open/ Closed/ No Change	Open/ Closed/ No Change
14. From the above steps, enter the most negative number of the CAZ WRT outdoors.				Pa	Pa
FLUE SPILLAGE					
1. Under worst-case conditions, fire appliances individually. Begin with the smallest BTU appliance. Record spillage at 2 minutes. If vent is cold record spillage at 5 minutes. (SEE NOTES BELOW)				Spillage	Spillage
Water Heater				Yes / No	Yes / No
Furnace/Boiler				Yes / No	Yes / No
Other Appliance description:				Yes / No	Yes / No
2. If appliance fails/spills, correct problem. (i.e. make up air, seal open returns, etc.)					
3. If dwelling has other combustion appliance zones, repeat test there.					
4. Return dwelling, exhaust fans, and combustion appliances to normal settings.					
5. Record highest ambient CO levels during spillage testing.				ppm	ppm
Ambient CO Limits					
9 - 35 ppm		Look for sources of CO, advise resident, and continue testing.			
36 - 69 ppm		Shut off all combustion appliances, ventilate, and advise resident.			
Notes: Under worst-case conditions, fire appliances individually. Always begin the smallest BTU appliance. Spillage must not exist after 2 minutes in a warm vent (i.e. water heaters, furnaces in heating mode). Spillage must not exist after 5 minutes for furnaces with cold vent (not during heating season).					
Signature				Date	
Signature				Date	

ND FUEL FURNACE FIELD INSPECTION

NORTH DAKOTA DEPARTMENT OF COMMERCE

DIVISION OF COMMUNITY SERVICES

SFN 59407 (2/7/15)

State of North Dakota Weatherization Assistance Program Heating System Clean, Tune, and Inspection Form

Job #	Name	Phone		
Address	City	State	Zip	
Fuel Type	Heating System Type	Owner/Renter		
Input	Output	Date		
Pre-test Post-test Pre-test Post-test				
Gas leaks	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Open air returns	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Venting problems	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Missing main shutoff	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Carbon indicators	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Asbestos	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
		Heat exchanger check		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Anticipator:		Set at:		Reset:
Measured:				
Cycling on high limit		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Oil system smoke test
Fan on (15 sec)/off temp		/	/	Draft, breach
Spillage/backdraft		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Draft, overfire
Steady State Heatrise		Pre	=	Steady State Heatrise
Carbon monoxide		Pre	ppm	Post
Check filter		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	High limit temp
Cleaned blower		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Clean heat exchanger
Blower amp. draw		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Check belt
Netstack temp		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	A coil dirty
Efficiency %		CO ₂ or CO ₂ %		Run final furnace cycle
Duct problem s				<input type="checkbox"/> Yes <input type="checkbox"/> No
H2O heater CO		ppm	ppm	H2O heater Draft
<input type="checkbox"/> At the time of this inspection, this heating system was operating properly.				
<input type="checkbox"/> Comments/Warning				
Technician Signature				Date
I understand the above problem s				

While at the home -

Is the client satisfied or are there problems?

Review Health and Safety questionnaire

Review notifications – Lead, Asbestos, Radon, etc.

Has the client seen any reduction in energy costs?

Are there any problems with the work?

Were there any problems with the crew?

Are there any questions about what was done?

Are there any questions about what was not done?

Exit interview -

We normally meet with the Agency Director and the Weatherization Coordinator

In most cases we try to meet with the crews if time allows

We go over any findings

Talk about observations of any new methods and good work

Discuss any training that might be indicated

Send the written report -

Within 30 days we are required to send out the written report

Agency then has 30 days to respond to any findings or callbacks

Response must include verification of fixing any problems that were found

We may check again at the next monitoring if we have questions about the response



Bruce Hagen

1401 College Dr. N

Devils Lake, ND 58301

701-390-4806

bahagen@nd.gov

www.ndwap.com



Quality Assurance State and Local Level Monitoring

**National Association of State and
Community Service Programs
Omaha, Nebraska**

September 30, 2016

Hoyt O'Brien

Wisconsin Division

**of Energy, Housing and Community
Resources**





Three State Comparison...

- **New Mexico**
- **North Dakota**
- **Wisconsin**



What is the same

- 100 percent QCI on DOE units
- State completes QCI on at least 5 or 10 percent of completed units
- Administrative Review completed at all subgrantees



What is the same

- **Everyone uses multiple checklists that look very similar**
- **Admin reviews, file reviews, procurement reviews are looking at the same thing**
- **All DOE inspections are completed by certified QCI**



What is different...

- **Territory size**
 - **New Mexico – 121,412 square miles**
 - **North Dakota - 70,704 square miles**
 - **Wisconsin – 65,503 square miles**



What is different...

- **Number of contracts**
 - **New Mexico – two WAP contracts**
 - **North Dakota - seven WAP contracts**
 - **Wisconsin – 22 WAP contracts**



What is different...

- **Number of contracts**
 - **New Mexico – two WAP contracts**
 - **North Dakota - seven WAP contracts**
 - **Wisconsin – 22 WAP contracts**



What is different...

- Annual dollars and units in WAP
 - New Mexico – \$1.8 million DOE
 - 200 DOE units
 - North Dakota - \$2.3 million DOE + EAP
 - 220 DOE units 700-800 units
 - Wisconsin – \$6.5 million DOE + \$12M LIHEAP + \$36.9M Public Benefits \$55.4M
 - 787 DOE + EAP *and* PB about 5,608 units



What is different...

- **BPI QCI certified inspectors**
 - **New Mexico – 12**
 - **North Dakota - 17**
 - **Wisconsin – 68 – most work for the division or one of the agencies**

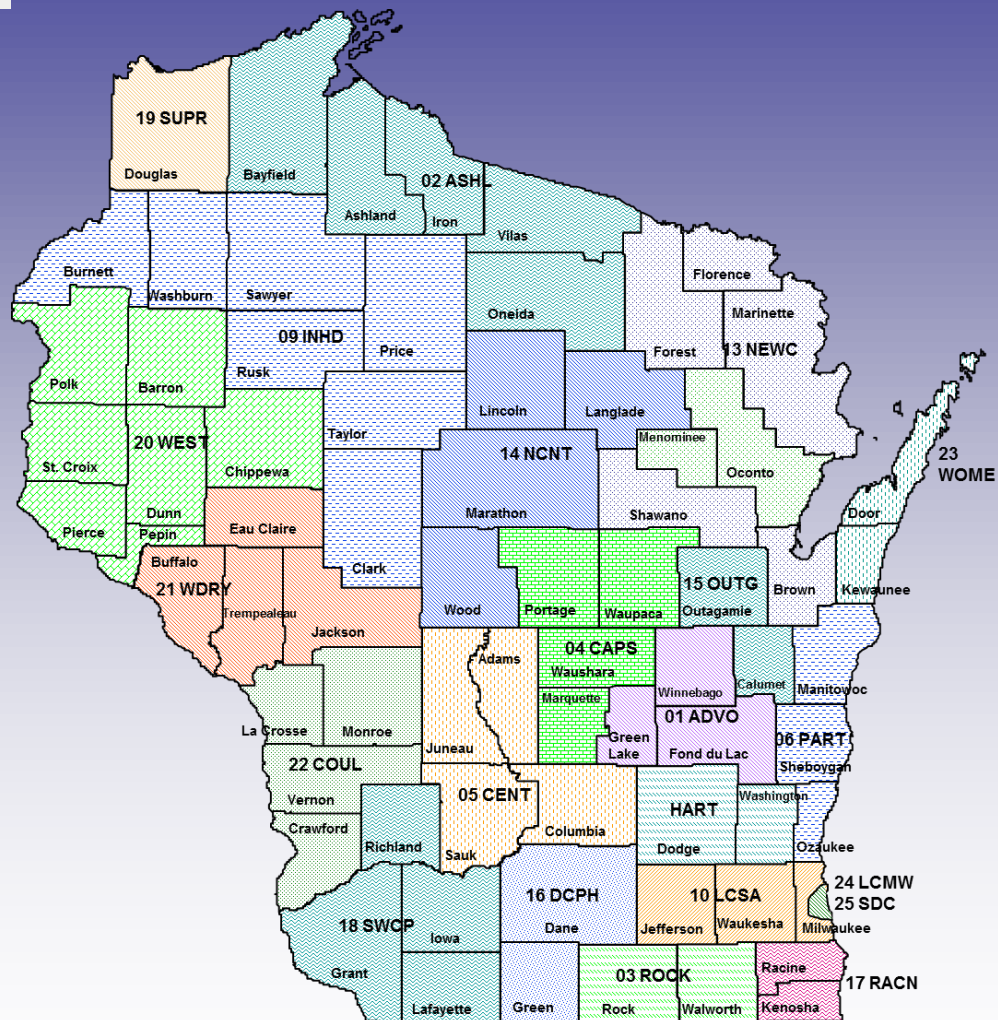


What is different...

- **State staff supporting WAP**
 - **New Mexico ~2 this is a guess**
 - Also monitor additional programs
 - **North Dakota - ~2 this is a guess**
 - Also monitor additional programs
 - **Wisconsin – 9 or 10**
 - Also complete 200 emergency furnace inspections



agencies





Wisconsin Income Verification

- All income verification is completed by energy assistance staff and entered into the Home Energy Plus online system for 72 counties and 7 tribes
- Wx agencies import minimal customer information into WisWAP

http://wx.wi.gov/Default.asp

File Edit View Favorites Tools Help

Favorites Blower door test -multi unit Web Slice Gallery

WisWAP [Home Page]

Home Page Safety Tools

WisWAP

Home Page

Main | Buildings | Invoices | Contracts | Admin | Search | Reports | Help

Alert Messages

WisWAP is unavailable Sundays, from 4:00AM-12:00PM for scheduled maintenance.

Send Questions and Comments to:
Energy Assistance Bureau
Division of Energy, Department of Administration
Help Desk Phone: (608) 267-3680

**WisWAP****Building Summary - Cycle 1**[Main](#) | [Buildings](#) | [Invoices](#) | [Contracts](#) | [Admin](#) | [Search](#) | [Reports](#) | [Help](#)**Building Information**

Building #	:	Grantee Building #
Grantee	_____	City/State/Zip
Housing Type	Single family house	Total Units 1
Total Units Wx'd	1	Date Prev. Wx'd
Vacant Building	No	PB Eligible Yes
Shelters	No	Building Status Closed
Master Meter Electric	No	Landlord
Auditor Inspection	Worksheet	Date Completed 6/14/2011 2:38:13 PM
DOE Inspection		Is Building Computer Audited Yes
Is ARRA Building?	Yes	Created By
Year Built	1987	Last Updated By
Exempt Historic Review	Yes	

☒ [Edit Building](#) ☒ [Delete Building](#) ☒ [Add Reweatherization Cycle](#) ☐ [Change Grantee Zipcode](#)**Building Unit Information**

Job	Unit	Address	Own/Rent	Application	Cert. Date	Status	Completion Date	Mailing Label	Data Entry Worksheet
-----	------	---------	----------	-------------	------------	--------	-----------------	---------------	----------------------

<u>MWHT005 - Hot Water Treatments Flow Restrictors</u>	each	Estimate: 2 Actual: 1	0.158 0.079	\$8.75 \$21.29	\$17.49 \$21.29	\$0.00	none	ARRA	\$21.29	✓
<u>MWHT010 - Hot Water Treatments Pipe Insulation</u>	Job	Estimate: 1 Actual: 1	0.80 0.80	\$57.39 \$131.91	\$57.39 \$131.91	\$0.00	none	ARRA	\$131.91	✓
<u>MWHT020 - Hot Water Treatments Showerhead</u>	each	Estimate: 1 Actual: 1	0.106 0.106	\$14.59 \$42.59	\$14.59 \$42.59	\$0.00	none	ARRA	\$42.59	✓
<u>PCFL005 - Lighting CFL Bulb</u>	each	Estimate: 16 Actual: 18	0.64 0.72	\$4.71 \$8.16	\$75.28 \$146.84	\$0.00	none	ARRA	\$146.84	✓
<u>URR005 - Refrigerator Replacement</u>	each	Estimate: 1 Actual: 1	0.00 0.00	\$566.00 \$566.00	\$566.00 \$566.00	\$0.00	none	PB	\$566.00	✓
<u>VFR005 - Freezer Replacement</u>	each	Estimate: 1 Actual: 1	0.00 0.00	\$363.00 \$349.00	\$363.00 \$349.00	\$0.00	none	PB	\$349.00	✓
<u>XHAL005 - Health and Safety Alarms CO Detector New or Replace</u>	each	Estimate: 1 Actual: 1	0.09 0.09	\$30.00 \$37.35	\$30.00 \$37.35	\$0.00	none	PB	\$37.35	✓
<u>XHAQ005 - Health and Safety Air Quality Worst Case Draft Test</u>	each	Estimate: 1 Actual: 1	0.50 0.50	\$50.00 \$120.00	\$50.00 \$120.00	\$0.00	none	PB	\$120.00	✓
<u>XHAQ025 - Health and Safety Air Quality Dehumidifier New or Replace</u>	each	Estimate: 1 Actual: 1	0.00 0.00	\$220.00 \$184.00	\$220.00 \$184.00	\$0.00	none	PB	\$184.00	✓
<u>XHAQ035 - Health and Safety Air Quality Other Remediation</u>	each	Estimate: 1 Actual: 1	0.00 0.00	\$160.00 \$160.00	\$160.00 \$160.00	\$0.00	none	PB	\$160.00	✓
<u>XHAR005 - Health and Safety Ventilation Exhaust Ventilation</u>	each	Estimate: 1 Actual: 1	0.00 0.00	\$821.53 \$845.14	\$821.53 \$845.14	\$0.00	none	PB	\$845.14	✓
<u>ZRAQ005 - Repair Air Quality Dryer Venting</u>	each	Estimate: 1 Actual: 1	0.40 0.40	\$75.57 \$134.67	\$75.57 \$134.67	\$0.00	none	ARRA	\$134.67	✓

created by:

last update by:

Wisconsin Department of Administration

101 East Wilson Street

Madison, WI 53702

[Report An Error](#)

http://wx.wi.gov/default.asp

File Edit View Favorites Tools Help

Favorites Blower door test -multi unit Web Slice Gallery

WisWAP [Home Page]

Page Safety Tools

WisWAP

Home Page

Main | Buildings | Invoices | Contracts | Admin | Search | Reports | Help

Applications

Buildings and Units

Job Costs

Invoice Costs

Alert Message

WisWAP is unavailable Sundays, from 4:00AM-12:00PM

ARRA Average Cost Per Unit

DOE Average Cost Per Unit

Average Cost per Measure

Funds Remaining

Measure Cost Details

Operations and H&S Costs

Unit Counts by Fund

1-4 Unit Measure Frequency and Average Cost

Measure Exception

Send Questions and Comments to:
Energy Assistance Bureau
Division of Energy, Department of Administration
Help Desk Phone: (608) 267-3680

Monthly Production vs Contract Plan

Contract AD119500.17 2012 Contract Plan and Status

Selection Criteria: Report Type: By Grantee | Grantee: Racine/Kenosha CAA - (17) | Contract Year: 2012

Grantee Name 17 Racine/Kenosha CAA

Total Budget \$3,454,450.00

Total Units 402

Expenditures						Production				
Month	Planned Expenditures	Actual Expenditures	% of Planned Expenditures	YTD Total Actual Expenditures	YTD % of Cumulative Planned Expenditures	Planned Units Production	Actual Units Production	% of Planned Units	YTD Total Actual Units	YTD % of Cumulative Planned Units
Jul	\$261,171.00	\$211,836.01	81.1%	\$211,836.01	81.1%	30	52	173.3%	52	173.3%
Aug	\$257,270.00	\$317,525.23	123.4%	\$529,361.24	102.1%	30	42	140.0%	94	156.7%
Sep	\$339,360.00	\$299,258.80	88.2%	\$828,620.04	96.6%	40	0	0%	94	94.0%
Oct	\$256,270.00	\$266,567.20	104.0%	\$1,095,187.24	98.3%	30	78	260.0%	172	132.3%
Nov	\$343,747.00	\$228,153.83	66.4%	\$1,323,341.07	90.8%	40	21	52.5%	193	113.5%
Dec	\$276,085.00					30	0			
Jan	\$259,740.00					30	0			
Feb	\$258,657.00					30	0			
Mar	\$261,363.00					30	0			
Apr	\$283,754.00					35	0			
May	\$314,771.00					35	0			
Jun	\$342,262.00					42	0			

Actual Expenditures \$1,323,341.07

% of Annual Budget 38.3%

YTD Total Units 193

% of Annual Units Goal 48.0%



Monitoring Staff

Wisconsin Quality Assurance Section Staff includes

- Three Administrative Review positions.
- Five On-site technical assistance and file review positions. All QCI
- Subcontracted state QCI inspections.
- Additional desk monitoring and support staff.



Support for agencies

- **Weatherization Field Guide**
- **Weatherization Manual**
- **Help Desk; email or phone call**
- **Weatherization Contract Planning Workbook**
- **Technical Assistance**
- **Training**



Trainings and Certifications

- Effective Complaint Resolution
- Deferral of Service - New
- Developing & Implementing Effective Presentations (Train-the-Trainer)
- Asbestos O&M Training for DES Staff
- State Procurement Training
- Understanding Boiler Systems
- Monitoring Weatherization Assistant
- Working with the Electronic Diagnostic Workbook
- Wisconsin Weatherization Manual
- Multi-family Policy & Reporting
- Deferral of Services Policies
- Team Building – Coaching & Retaining Staff
- The Manager's Dilemma: Do I Manage the Work or the People
- 12 Acts of Courage to Change Meetings for Good
- Keeping Morale High During Difficult Times
- On-the-Job Ethics (Management perspective)
- Inventory Management – State & Federal Requirements
- Subcontractor Management
- Procurement Success from Start to Finish
- Federal Fiscal Requirements
- OSHA Basics for Managers
- WisWAP Data Entry – New Worker
- WisWAP Data Entry – Advanced
- WisWAP Reporting for Management
- WisWAP Training – Topic TBD
- Wx Auditor/Inspector Guide Review
- Weatherization Assistant Update
- Weatherization Assistant Software Update FY16
- Working on a Team for Auditors & Inspectors
- Quality Control Inspector Written Exam Preparation (QCI Candidates)
- Quality Control Inspector Written Exam Preparation (QCI Candidates)
- Targeted Dense-Pack and Advanced Insulation Techniques
- Air Sealing Through Zone Pressure Diagnostics



More trainings...

- Asbestos Management Planner
- Asbestos Inspector
- Project Timeline Management
- Planning for End State
- Component – Classroom w/Field
- Basic Energy Auditor
- Intermediate Energy Auditor
- Final Inspector Training
- Understanding Boilers
- Forced Air Heating System Testing & Diagnosis (including combustion safety)
- Mobile Home Energy Auditor Training
- Component – Classroom w/Computer Lab
- Weatherization Assistant – Beginner
- Weatherization Assistant – Intermediate
- Weatherization Assistant – Multi-family
- WI Wx Installer Field Guide Review
- Lead Renovator
- Lead to Renovator Refresher
- Asbestos O&M
- Mobile Home Weatherization
- Installing Ventilation Systems
- Spray Foam in Weatherization
- Mold Awareness
- Weatherization Boot Camp
- Infrared Scanning
- Distribution System Testing & Sealing
- Basic Diagnostics (Blower door, WCD, etc.)
- Advanced Diagnostics (ZPD)
- WCD, Water Heater Draft, Zone Pressure Diagnostics



Pre-Visit Preparation

- **Review WisWAP reports**
 - Monthly Production versus Contract Plan
 - Unit Status
 - Weatherized Unit Duration Reports
 - Reason Deferred
 - Average Cost Per Measure
 - Measure Cost Details
 - 1-4 Unit Measure Frequency
 - Expenditure Detail by Grantee



Onsite Visit Activities

- Review agency project files
- Record review information
- Review energy audit
- Review diagnostic workbook
- Collect wdz, diagnostic workbook, audit photos, final inspection photos as directed
- Determine if there are recent or planned Agency staff changes within their Wx program and/or Fiscal or Management
- Review any contractor management, quality, and/or production issues



Onsite

- Determine if there are any upcoming plans for new procurements.
- Work flow – Record the current quantities of-
 - applications
 - audits
 - units issued for contractor/crew work
 - final inspections
 - completed units
- Compare to the Agency contracted unit goal
- Agency Administrative Review Quality Assurance Plan follow-up



Onsite technical assistance

- **Field Quality Assurance Monitors are onsite monthly or every other month**
- **In the field with crews, energy auditors and final inspectors**
- **Working with agency management based on Quality Assurance Plan developed by Administrative Review team**



Home Energy Plus site

Screenshot of the Home Energy Plus website interface. The browser address bar shows the URL: <http://homeenergyplus.wi.gov/category.asp?linkcatid=239&linkid=1188>. The page title is "Wisconsin Home Energy Assistance Program (WHEAP)".

The navigation menu includes: Home, Program Descriptions, Where to Apply, Detailed Reports, Links, and Grantee Information.

The main content area displays the following information:

- Enter Keyword:** Search
- Wisconsin Home Energy Assistance Program (WHEAP)**
- The Wisconsin Home Energy Assistance Program (WHEAP) provides assistance for heating costs, electric costs, and energy crisis situations. Operating with federal and state funding, the program provides assistance to approximately 230,000 Wisconsin households annually.
- Most types of fuel are eligible to receive assistance. Whether you use wood, propane, natural gas, electricity, or fuel oil to heat your home, energy assistance is available if you qualify.
- Heating Assistance**
- WHEAP assistance is a one-time payment during the heating season (October 1-May 15). The funding pays a portion of the heating costs, but the payment is not intended to cover the entire cost of heating a residence. The amount of the energy assistance benefit varies depending on a variety of factors, including the household's size, income, and energy costs. In most cases the energy assistance benefit is paid directly to the household energy supplier.
- Electric Assistance**
- Your household may be eligible to receive a payment for non-heating electric energy costs through funding provided by Wisconsin's Public Benefits.
- WHEAP electric (non-heating) assistance is a one-time benefit payment during the heating season (October 1-May 15). The funding pays a portion of the household's electrical (non-heating) costs, but the payment is not intended to cover the entire cost of the non-heating costs.
- The amount of the non-heating assistance benefit varies depending on a variety of factors, including the household's size, income, and non-heating costs. In most cases the non-heating assistance benefit is paid directly to the household energy supplier.
- Crisis Assistance**
- A household may be eligible for crisis assistance if you have no heat, have received a disconnect notice from the heating vendor, or are nearly out of fuel and do not have the

The taskbar at the bottom shows the Windows XP interface with various application icons and a system clock displaying 6:02 PM on 9/29/2016.





WisWAP Selection

Browser window showing the Home Energy Plus website. The address bar displays: <http://homeenergyplus.wi.gov/section.asp?linkid=122&locid=25>. The page title is "Intranet - Ho...". The navigation menu includes: Home, Program Descriptions, Where to Apply, Detailed Reports, Links, and Grantee Information. The "Grantee Information" section is active.

Grantee Information

Enter Keyword: Search

WHEAP users click on the WHEAP Grantee information to find WHEAP program information.

WisWAP users click on the WisWAP Grantee information to find WisWAP program information.

Information on the Home Energy Plus Program including Energy Assistance and Weatherization, click on the Home Energy Plus link below.

For information regarding Frequently Asked Questions, Events Calendar, Training Announcement and Registration Forms, Training Handouts and Other Materials (coming soon) is available on the Home Energy Plus Training and Technical Information site. Please click on the link below.

[Home Energy Plus Program Information](#)
[WHEAP Grantee Information](#)
[WisWAP Grantee Information](#)
[Home Energy Plus Training & Technical Assistance](#)
[Procurement Information](#)

Is there something you did not find on this list? Check the [Grantee Information Archives](#).

(+) External Link - Browser opens in a new window.





Documents

Browser window showing the Home Energy Plus website. The address bar displays: <http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=1228>. The page title is "Intranet - Ho...". The navigation menu includes: Home, Program Descriptions, Where to Apply, Detailed Reports, Links, Grantee Information.

Search bar: Enter Keyword: [] Search

WisWAP Grantee Information

Heating System information can be found on the [Home Energy Plus Program Information](#) page.

Department of Energy Plans
[Program Year 2016 DOE Annual Plan](#) (07/26/2016)
[Program Year 2016 DOE Master Plan](#) (07/26/2016)

FY17 Program Manuals
[FY 2016-2017 Weatherization Program Manual](#) (09/20/2016)
[Weatherization Manual Change Submittal Form](#) (12/7/2015)

Wisconsin Weatherization Field Guide
[Complete FY17 Field Guide](#) (06/27/2016)
[Chapter 1: Diagnosing Air Leakage](#) (06/22/2016)
[Chapter 2: Heating Envelope Building Measures](#) (06/22/2016)
[Chapter 3: Heating System Measures](#) (06/22/2016)
[Chapter 4: Base Load Measures](#) (06/22/2016)
[Chapter 5: Health and Safety](#) (06/22/2016)
[Chapter 6: Repair](#) (06/16/2016)
[Chapter 7: Manufactured Housing Weatherization](#) (06/22/2016)
[FY17 Field Guide Summary of Changes](#) (6/23/2016)

Mobile Home Measures List
[Mobile Home Measures List](#) (06/23/2016)
[Mobile Home Measures List WisWAP Reporting Guide](#) (06/23/2016)
[Mobile Home Measures Building Create/Add Measure/Invoice guide](#) (06/23/2016)

System tray shows: 100% zoom, 6:04 PM, 9/29/2016.





Forms

Browser window showing the Home Energy Plus website. The address bar displays: <http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=1228>. The page title is "Field Forms".

Field Forms

Work Agreements

- [Weatherization Single Family Owner Occupied - English](#) (6/28/2016)
- [Weatherization Single Family Owner Occupied - Spanish](#) (6/30/2016)
- [Weatherization Single Family Owner Occupied - Hmong](#) (6/30/2016)
- [Weatherization Rental Work Agreement - English](#) (6/28/2016)
- [Weatherization Rental Work Agreement - Spanish](#) (6/30/2016)
- [Weatherization Rental Work Agreement - Hmong](#) (6/30/2016)
- [Baseload - Rental and Owner Occupied - English](#) (6/28/2016)
- [Baseload - Rental and Owner Occupied - Spanish](#) (6/30/2016)
- [Baseload - Rental and Owner Occupied - Hmong](#) (6/30/2016)
- [Mobile Home Measures List - Owner Occupied - English](#) (6/28/2016)
- [Mobile Home Measures List - Owner Occupied - Spanish](#) (6/30/2016)
- [Mobile Home Measures List - Owner Occupied - Hmong](#) (6/30/2016)
- [Mobile Home Measures List - Rental - English](#) (6/28/2016)
- [Mobile Home Measures List - Rental - Spanish](#) (6/30/2016)
- [Mobile Home Measures List - Rental - Hmong](#) (6/30/2016)

Required Forms

- [FY17 Heating System Checklists, Combined](#) (6/16/2016)
- [Health & Safety Checklist](#) - English (6/28/2016)
- [Health & Safety Checklist](#) - Spanish (6/30/2016)
- [Moisture Audit](#) - English (6/28/2016)
- [Moisture Audit](#) - Spanish (6/30/2016)
- [H&S Checklist and Moisture Audit, Combined](#) - English (6/29/2016)
- [H&S Checklist and Moisture Audit, Combined](#) - Spanish (6/30/2016)
- [H&S Checklist and Moisture Audit, Combined](#) - English Printable Version (8/26/2016)
- [Refusal of Ventilation: Release of Liability, Indemnification & Waiver of Claims](#) - English (6/10/2016)
- [Refusal of Ventilation: Release of Liability, Indemnification & Waiver of Claims](#) - Spanish (6/30/2016)
- [Refusal of Ventilation](#) - English Printable Version (8/26/2016)
- [Ventilation and Your Home](#) (11/10/2014)
- [Ventilation and Your Home - Spanish](#) (11/10/2014)
- [Lead Safe Weatherization Form](#) (8/5/2016)
- [Lead Safe Weatherization](#) - Printable Version (8/26/2016)



HE+ training site

The screenshot shows a web browser window displaying the Home Energy Plus Training website. The address bar shows the URL <http://homeenergyplus.weccusa.org/traininghome>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar shows various icons for suggested sites, RSS, and other functions. The website's header features the "homeenergy+" logo in a green and yellow banner. Below the logo is a green navigation bar with links: Home, Events Calendar, Wx Guidebook, FAQs, MSDS Search, Training, Technical Assistance, Exams, Conferences, HE+ Home, and Logout. The main content area has a welcome message and a list of training sections:

- Agency Staffing Update Tool
- Media Library
- Session Evaluations
- Training and Technical Aids
- Training Presentations
- Training Retention Activities
- Webinars
- Wx Online Training
- Wx Training Modules
- WHEAP
- Home Energy Plus Training Reports

At the bottom of the main content area, there is a link: "Problems using this site? Contact us at he+training@weccusa.org". The browser's status bar at the bottom shows the Windows taskbar with various application icons and the system clock displaying 3:59 PM on 9/29/2016.





HE+ training site

Browser window showing the Home Energy Plus Training home page. The address bar displays <http://homeenergyplus.weccusa.org/traininghome>. The page features a green navigation bar with links: Home, Events Calendar, Wx Guidebook, FAQs, MSDS Search, Training (selected), Technical Assistance, Exams, Conferences, HE+ Home, and Logout. The Training dropdown menu is open, listing: Agency Staffing Update Tool, Training Modules, Media Library, Session Evaluations, Training and Technical Aids, Training Presentations, Training Retention Activities, Webinars, WHEAP, Wx Online Training, Wx Training Modules, and Home Energy Plus Training Reports. The main content area welcomes users to the Home Energy Plus Training home page and lists the same menu items. A footer link provides contact information: he+training@weccusa.org. The Windows taskbar at the bottom shows the time as 3:59 PM on 9/29/2016.





Reporting Tools

WisWAP

- Customer information
- Action dates
 - Application
 - Energy Audit
 - Final Inspection
 - Invoice date
- Measure costs
- Unit counts
- Average costs

Quality Assurance Reporting Database

- Selection of homes to inspect
- Inspection results by measure
- Tracking of inspected units
- Inspector statistics
- Developed a scoring system

1-4 Unit Measure Frequency and Average Cost Report

Contract Year 2012

Selection Criteria: Contract Year: 2012 | Housing Type: Single family house | Measure Category: Wall Insulation

Statewide Average Cost \$1,535.42
 Statewide % of Units Receiving Measure 28.8%
 Statewide no. of completed Units 1,186

Single family house

Wall Insulation

	<u>AVERAGE JOB MEASURE COST</u>	<u>NO. OF UNITS RECEIVING MEASURE</u>	<u>% OF UNITS RECEIVING MEASURE</u>	<u>NO. OF COMPLETED UNITS</u>
01 ADVOCAP, Inc.	\$2,114.15	30	37.0%	81
02 Ashland Co. Housing Authority	\$851.45	19	27.5%	69
03 Rock/Walworth Comm. Action	\$1,103.97	22	29.3%	75
04 CAP Services, Inc.	\$1,537.30	18	32.1%	56
05 Central WI Community Action Council	\$1,020.65	23	34.3%	67
06 Partners For Community Dev.	\$1,304.03	6	40.0%	15
08 Hartford Comm Development Authority	\$1,843.67	8	28.6%	28
09 Indianhead Community Action Agency	\$736.75	16	20.8%	77
10 La Casa de Esperanza	\$1,110.74	10	11.5%	87
14 North Central CAP, Inc.	\$2,339.07	2	6.9%	29
15 Weatherization Services - OCHA	\$2,348.49	13	43.3%	30
16 Project Home, Inc.	\$2,161.39	34	32.1%	106
17 Racine/Kenosha CAA	\$2,148.65	12	54.6%	22
18 Southwestern Wisconsin CAP	\$1,384.57	21	31.3%	67
20 West Central Wisconsin CAP	\$916.46	19	32.8%	58
22 Couleecap, Inc	\$976.64	26	32.5%	80
23 Women's Employment Project	\$2,104.22	7	33.3%	21
24 La Casa de Esperanza - MILW	\$1,990.50	30	21.1%	142
25 Social Development Commission	\$1,695.54	25	32.9%	76

YTD Expenditures by Fund With Line Item Detail (Contract Year 2012)

Selection Criteria: Report Type: State Wide | Contract Year: 2012

State Totals

<i>Line Item</i>	<i>Fund</i>			
	<i>DOE</i>	<i>Public Benefits</i>	<i>EAP</i>	<i>Total</i>
Administration	\$0.00	\$1,586,181.82	\$526,663.22	\$2,112,845.04
Operations	\$270.00	\$10,294,717.94	\$2,012,212.43	\$12,307,200.37
Program Support	\$0.00	\$4,529,667.20	\$1,546,954.61	\$6,076,621.81
Liability Insurance	\$0.00	\$110,764.35	\$57,516.42	\$168,280.77
Financial Audit	\$0.00	\$11,031.94	\$7,613.54	\$18,645.48
Health & Safety	\$0.00	\$2,317,088.03	\$427,023.55	\$2,744,111.58
TTA	\$8,491.02	\$243,133.14	\$0.00	\$251,624.16
Total	\$8,761.02	\$19,092,584.42	\$4,577,983.77	\$23,679,329.21

QA Reporting 2012

File Home Create External Data Database Tools

View Paste Filter Refresh All Find Size to Fit Form Switch Windows Text Formatting

Cut Copy Format Painter Clipboard Sort & Filter Records Window

Main Menu

Wisconsin Department of Administration
Division of Energy Services Version: 08/25/2011 [HELP](#)

RED buttons require password.

Password



To post a problem or question,
click on the DES Help Desk Email
link below or call (608) 267-3680.
[Email DES Help Desk](#)

2012 Wx QA Inspection Menu

[Pick Buildings](#) [Pick Furnaces](#)

[DES Inspections](#) [Edit QA Records](#)

[WECC Inspections](#) [WECC Furnaces](#)

[View or Send](#) [Letter Log](#)

[Reports Menu](#)

[Quit](#)

Folder Location and Database:
G:\EnergyServicesBureau\QC Reporting DataBase\QA_Reporting2012.mde

Agencies are required to have proper documentation in files

- **required photos in the file**
 - Appliances that may be replaced
 - Doors & Windows for replacement
 - Lead Safe Work
- **ensure forms are filled out accurately and completely.**
 - Blower door/combustion safety/ZPD
 - Heating system checklists

Administrative Monitoring

Administrative Review Questionnaire

File Review Checklist

Procurement Review Checklist

FY 2012 ADMINISTRATIVE REVIEW QUESTIONNAIRE

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WISCONSIN DES FY 2012 ADMINISTRATIVE FILE REVIEW

Contract AD119500. _____		DES File Review Date: _____	
Agency: _____		DES Reviewer: _____	
Building ID #: _____		WisWAP Job Completion Date: _____	
1. Verification of Eligibility - WHEAP Referral Details		Date _____	Recert Date _____
2. Verification of Ownership <input type="checkbox"/> Tax Statement, <input type="checkbox"/> Deed, <input type="checkbox"/> Title - (Wx PM 2.7)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
3. <input type="checkbox"/> Deferral <input type="checkbox"/> Denial notice & <input type="checkbox"/> Pictures Required - (Wx PM 2.5.2)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
4. Work Agreement <input type="checkbox"/> Signed <input type="checkbox"/> Dated by <input type="checkbox"/> Property owner/Agent - (Wx PM 8.4)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
5. <input type="checkbox"/> NEAT, <input type="checkbox"/> MHEA, or <input type="checkbox"/> TREAT Audit Report (or access to)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
6. Work Order including:			
(a) Total measure costs w/ actual materials and labor & matches WisWAP		YES <input type="checkbox"/>	NO <input type="checkbox"/>
(b) Documentation of <input type="checkbox"/> Call-back corrections with <input type="checkbox"/> Pictures		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
(c) Final Inspection <input type="checkbox"/> Signed by inspector <input type="checkbox"/> Dated <input type="checkbox"/> WisWAP date match		YES <input type="checkbox"/>	NO <input type="checkbox"/>
(d) Work signoff <input type="checkbox"/> Owner/agent or <input type="checkbox"/> Owner/agent and tenant <input type="checkbox"/> Date		YES <input type="checkbox"/>	NO <input type="checkbox"/>
(e) Quality control record, if performed - (Wx PM 1.2.5)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
(f) Justification for Measures List items not completed		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
7. Electric Heat Fuel Switch Calculator Worksheet - (Wx PM 10.6)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
8. H&S Inspection Checklist <input type="checkbox"/> Moisture Audit in file (if necessary) - (Wx PM 12.1.1)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
9. EPA "Guide to Mold/Moisture" & "Lead - Renovate Right" pamphlets to customer		YES <input type="checkbox"/>	NO <input type="checkbox"/>
10. "Customer Bill of Rights" pamphlet to customer - (Wx PM 1.2.8.1)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
11. <input type="checkbox"/> "Ventilation & Your Home" or <input type="checkbox"/> "Refusal of Ventilation Waiver" - (10.5.2)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
12. <input type="checkbox"/> Heating System Checklist & <input type="checkbox"/> Sizing calculations (replacement units)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
13. Completed Building Diagnostics Forms <input type="checkbox"/> ZPD (attached garage)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
14. Completed Blower Door Test & Sealing Summary form		YES <input type="checkbox"/>	NO <input type="checkbox"/>
15. Rental units: <input type="checkbox"/> Rental work agreement, <input type="checkbox"/> Unit's monthly rent, <input type="checkbox"/> Landlord Contribution calc., <input type="checkbox"/> Rental Housing Plan - (Wx PM 3.4)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
16. Accrual of Benefits Form (≥ 2 units / tenants do not pay fuel or electric bill)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
17. Any waivers or approvals pertaining to the job or bldg. - (Wx PM 8.2, 15)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
18. Copy of Insulation Certificate in the project file - (Wx Info. Transmittal #37)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
19. Photographs (or access to): <input type="checkbox"/> Exterior front; <input type="checkbox"/> Each window, door, & appliance replaced; <input type="checkbox"/> Leaky water heater replaced; <input type="checkbox"/> Adverse conditions affecting Wxwork		YES <input type="checkbox"/>	NO <input type="checkbox"/>
20. Lien waivers - (Wx PM 6.8, 1, c) & (Wx PM 8.2, 17)		YES <input type="checkbox"/>	NO <input type="checkbox"/>
21. Building Permit(s), if required by local building codes - (Wx PM 8.2)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
22. Customer mailed or received WX Guidebook - (Wx PM 1.2.8)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
23. Lead Safe Documentation - (Wx PM 12.2.1) <input type="checkbox"/> Pictures; Lead Safe Wx Form: <input type="checkbox"/> PART A or <input type="checkbox"/> PART B with (one or more); <input type="checkbox"/> Renovation Recordkeeping Checklists		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
24. Certified Renovator Documentation - (Wx PM 12.2.1)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
25. Asbestos Documentation: <input type="checkbox"/> Work Agreement noting disturbed ACM; <input type="checkbox"/> Work modeled in an Audit; <input type="checkbox"/> Work Order notes for crew guidance; <input type="checkbox"/> Testing Results (if done); <input type="checkbox"/> Pictures; <input type="checkbox"/> Final attic insulation work and/or <input type="checkbox"/> Containment measures & safe work practices		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
26. State Historic Preservation Documentation - (Wx PM 10.8)		NA <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
Comments: _____			

WISCONSIN DES FY 2012 PROCUREMENT FILE REVIEW

AGENCY: 	AD119500. 	DATE:
CONTRACT SERVICE: 		DES REVIEWER:
CONTRACT LENGTH: 		CONTRACT EXTENSION: YES <input type="checkbox"/> NO <input type="checkbox"/>
Winning Service Bidder(s): 		
1. File copy of original RFB package materials.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
2. Documentation of Advertisement: <input type="checkbox"/> Agency Letter, <input type="checkbox"/> P.O., <input type="checkbox"/> Ad Copy.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
3. Vendor Solicitation List & <input type="checkbox"/> printout of researched MBE from the DOA website.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
4. Invitation To Bid letter in file.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
5. Bidder's questions documented: <input type="checkbox"/> List distributed to all Bidders.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
6. Bidder's Meeting (if conducted) <input type="checkbox"/> Mandatory or <input type="checkbox"/> Non-Mandatory	NA <input type="checkbox"/>	YES <input type="checkbox"/>
(a) Contractor Sign-In Sheet: (Name, Company, Contact Info, & Arrival Time)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
(b) Meeting Minutes documenting any topics and/or questions discussed.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
7. Bid Opening Minutes: List date & agency staff present, any special situations, or reasons for a bidder's disqualification.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
8. Bid submittal checklist verifying all required documents are present.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9. Retained original Bidder Envelopes showing Received Date/Time stamp.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
10. Bid Summary/Abstract Sheet:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
(a) Showing at a minimum: (Company, Date & Time In, Complete Bid Submittal, Total Bid Price, and Comments)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
(b) Clearly identifies the winning bidder - Primary & Secondary (if necessary) and documents the reasons the winning bidder(s) was selected.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
11. Contains all the original & complete contractor bid documents.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
12. Intent To Award letter in file & sent to all Bidders.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
13. Contains the original & signed Contractual Agreement.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
14. Sent Contract Compliance/Affirmative Action Plan contact information to contractor.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
15. Contract Revisions with a new & signed Contractual Agreement.	NA <input type="checkbox"/>	YES <input type="checkbox"/>
16. Contractor T&TA retention agreement, exchange for paying training costs.	NA <input type="checkbox"/>	YES <input type="checkbox"/>
17. Contract Extension with a new & signed Contractual Agreement. <input type="checkbox"/> Required documentation of State of WI Approval.	NA <input type="checkbox"/>	YES <input type="checkbox"/>
18. Documentation of Contractor cost increase requests & explanation.	NA <input type="checkbox"/>	YES <input type="checkbox"/>
Comments: 		



	A	B	C	D	E	F	G	H	I	J	K	L
1	FY17 AR Quality Assurance Plan											
2	Wx Subgrantee: [Agency Name (#XX)]											
3												
4	Lead AR Assignment: [Name]						Date of AR Site Visit: [mm/dd-dd/yy]					
5												
6	QA Monitor Assignment: [Name]						Date of QA Site Visit: [mm/dd-dd/yy]					
7												
8	Client File Review											
9	<i>Priority</i>		<i>Item Description</i>						<i>Agency Progress</i>		<i>Verified</i>	
10	1	High	[Title]: [Why it's here statement]. [Action statement]. <i>Resolve within 60 days.</i>									
11			QA Comments : [Double-Click]									
12												
13	2		[Title]: [Why it's here statement]. [Action statement].									
14			QA Comments : [Double-Click]									
15												
16	B. Programmatic & Administrative											
17	<i>Priority</i>		<i>Item Description</i>						<i>Agency Progress</i>		<i>Verified</i>	
18	1	High	[Title]: [Why it's here statement]. [Action statement]. <i>Resolve within 60 days.</i>									
19			QA Comments : [Double-Click]									
20												
21	2		[Title]: [Why it's here statement]. [Action statement].									
22			QA Comments : [Double-Click]									
23												



	A	B	C	D	E	F	G	H	I	J	K	L
22		<i>QA Comments :</i> [Double-Click]										
23												
24		C. Financial Management										
25		<i>Priority</i>		<i>Item Description</i>						<i>Agency Progress</i>		<i>Verified</i>
26	1	High	[Title]: [Why it's here statement]. [Action statement]. <i>Resolve within 60 days.</i>									
27		<i>QA Comments :</i> [Double-Click]										
28												
29	2		[Title]: [Why it's here statement]. [Action statement].									
30		<i>QA Comments :</i> [Double-Click]										
31												
32		D. Submittal Documents										
33		<i>Priority</i>		<i>Item Description</i>						<i>Agency Progress</i>		<i>Verified</i>
34	1	High	[Title]: [Why it's here statement]. [Action statement]. <i>Resolve within 60 days.</i>									
35		<i>QA Comments :</i> [Double-Click]										
36												
37	2		[Title]: [Why it's here statement]. [Action statement].									
38		<i>QA Comments :</i> [Double-Click]										
39												
40		E. Insurance and F. Other										
41		<i>Priority</i>		<i>Item Description</i>						<i>Agency Progress</i>		<i>Verified</i>
42	1	High	[Title]: [Why it's here statement]. [Action statement]. <i>Resolve within 60 days.</i>									
43		<i>QA Comments :</i> [Double-Click]										
44												



PLAN GOAL

- **Improve the consistency and quality of work in the weatherization program by providing technical assistance (TA) to weatherization agencies and subcontractors.**



Strategy

- The needs of each agency will be assessed based on past and future Quality Assurance (QA) inspections and Administrative Reviews as well as targeted reviews of agency files for compliance with program standards.
- Agencies will also be invited to ask for TA for self-identified needs.
- QA will work with the Policy Team to improve measures and their descriptions.



measurement of success

- improved passing ratios for agencies on QA inspections
- improved performance on Administrative Reviews
- reduced help desk calls
- reduced customer complaints



Wisconsin Quality Assurance

Hoyt K. O'Brien

Quality Assurance Manager

State of Wisconsin

**Division of Energy, Housing
and Community Resources**

<http://homeenergyplus.wi.gov/>

Heat@wisconsin.gov

hoyt.obrien@wisconsin.gov

***homeenergy*sm+**